

AD-A190 373

METHOD OF HARDENING GLASS-REINFORCED PLASTICS(U)
FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OH
V F DOLGIKH ET AL 09 FEB 88 FTD-ID(RS)T-0049-88

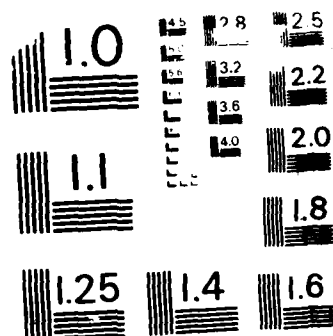
1/1

UNCLASSIFIED

F/G 11/9

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

AD-A190 373

DTIC FILE COPY 2

FTD-ID(RS)T-0049-88

FOREIGN TECHNOLOGY DIVISION



METHOD OF HARDENING GLASS-REINFORCED PLASTICS

by

V.F. Dolgikh, S.L. Roginskiy, et al.



DTIC
ELECTE
MAR 28 1988
S E D

Approved for public release;
Distribution unlimited.



28 3 88 60

HUMAN TRANSLATION

FTD-ID(RS)T-0049-88 9 February 1988

MICROFICHE NR: FTD-88-C-000219

METHOD OF HARDENING GLASS-REINFORCED PLASTICS

By: V.F. Dolgikh, S.L. Roginskiy, et al.

English pages: 3

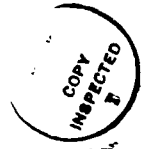
Source: USSR Patent Nr. 361094, 7 December 1972, pp. 1

Country of origin: USSR

Translated by: Carol S. Nack

Requester: FTD/TQTR

Approved for public release; Distribution unlimited.



Accession For

NTIS GRA&I ☒

DTIC TAB ☐

Unannounced ☐

Justification

By

Distribution/

Availability Codes

Dist	Avail and/or Special

THIS TRANSLATION IS A RENDITION OF THE ORIGINAL FOREIGN TEXT WITHOUT ANY ANALYTICAL OR EDITORIAL COMMENT. STATEMENTS OR THEORIES ADVOCATED OR IMPLIED ARE THOSE OF THE SOURCE AND DO NOT NECESSARILY REFLECT THE POSITION OR OPINION OF THE FOREIGN TECHNOLOGY DIVISION.

PREPARED BY:

TRANSLATION DIVISION
FOREIGN TECHNOLOGY DIVISION
WPAFB, OHIO.

A-1

U. S. BOARD ON GEOGRAPHIC NAMES transliteration SYSTEM

Block	Italic	Transliteration	Block	Italic	Transliteration
А а	<i>А а</i>	A, a	Р р	<i>Р р</i>	R, r
Б б	<i>Б б</i>	B, b	С с	<i>С с</i>	S, s
В в	<i>В в</i>	V, v	Т т	<i>Т т</i>	T, t
Г г	<i>Г г</i>	G, g	У у	<i>У у</i>	U, u
Д д	<i>Д д</i>	D, d	Ф ф	<i>Ф ф</i>	F, f
Е е	<i>Е е</i>	Ye, ye; E, e*	Х х	<i>Х х</i>	Kh, kh
Ж ж	<i>Ж ж</i>	Zh, zh	Ц ц	<i>Ц ц</i>	Ts, ts
З з	<i>З з</i>	Z, z	Ч ч	<i>Ч ч</i>	Ch, ch
И и	<i>И и</i>	I, i	Ш ш	<i>Ш ш</i>	Sh, sh
Й й	<i>Й й</i>	Y, y	Щ щ	<i>Щ щ</i>	Shch, shch
К к	<i>К к</i>	K, k	Ъ ъ	<i>Ъ ъ</i>	"
Л л	<i>Л л</i>	L, l	Ы ы	<i>Ы ы</i>	Y, y
М м	<i>М м</i>	M, m	Ь ь	<i>Ь ь</i>	'
Н н	<i>Н н</i>	N, n	Э э	<i>Э э</i>	E, e
О о	<i>О о</i>	O, o	Ю ю	<i>Ю ю</i>	Yu, yu
П п	<i>П п</i>	P, p	Я я	<i>Я я</i>	Ya, ya

*ye initially, after vowels, and after Ъ, Ы; e elsewhere.
When written as ѐ in Russian, transliterate as yě or ě.

RUSSIAN AND ENGLISH TRIGONOMETRIC FUNCTIONS

Russian	English	Russian	English	Russian	English
sin	sin	sh	sinh	arc sh	\sinh^{-1}
cos	cos	ch	cosh	arc ch	\cosh^{-1}
tg	tan	th	tanh	arc th	\tanh^{-1}
ctg	cot	cth	coth	arc cth	\coth^{-1}
sec	sec	sch	sech	arc sch	sech^{-1}
cosec	csc	csch	csch	arc csch	csch^{-1}

Russian English

rot curl
lg log

GRAPHICS DISCLAIMER

All figures, graphics, tables, equations, etc.
merged into this translation were extracted
from the best quality copy available.

METHOD OF HARDENING GLASS-REINFORCED PLASTICS

V. F. Dolgikh, S. L. Roginskiy, E. L. Kushnikova, L. A. Luchino,
Sh. K. Ashratova, A. F. Kamaletdinova, T. P. Karamova

↙ This invention is a method of hot hardening glass-reinforced plastics with any dimensions and for any purpose.

We know of a method of hot hardening glass-reinforced plastics in which a metal grid or wire to which current is subsequently supplied is inserted inside the glass-reinforced packet. The heat from the heated wire causes the binder to harden. However, the introduction of a metal grid or wire, which is a foreign body in a glass-reinforced plastic, reduces adhesion, thus disrupting its solidity, and makes the construction more difficult.

The purpose of this invention is to improve the physicomachanical characteristics of the material. This is accomplished by using

glass cloth with a carbon coating as the heat source for hardening the glass-reinforced plastic.

The glass-reinforced plastic, manufactured by the contact method, is placed on a heat-insulated plate. Depending on the thickness of the article, one or two layers of conducting glass cloth are inserted so that the ends protrude beyond the edge of the packet (one layer is placed in the middle of the packet; two - at uniform depths). The glass-reinforced plastic is also covered from the top by a heat-insulating plate. The protruding ends of the conducting glass cloth are connected to the power network. Depending on the resistance of the cloth and the supplied voltage, the article is heated to the specified temperature, and thus the article is polymerized.

The table gives the physicommechanical characteristics of the glass-reinforced plastic obtained.

Table. KEY: (1) Number of conducting layers. (2) Extension, kg/cm². (3) Compression, kg/cm². (4) Bending, kg/cm². (5) Specific viscosity, kg/cm².

(1) Количество токопроводящих слоев	(2) Растяже- ние, кгс/см ²	(3) Сжатие, кгс/см ²	(4) Изгиб, кгс/см ²	(5) Уд. вяз- кость, кгс/см ²
0	2850	3640	5420	220
1	2860	3737	5420	220
2	2850	3645	5416	200

Subject of Invention

This invention is a method of hardening glass-reinforced plastics by heating the packet of a preliminarily molded blank by introducing heat into it. It is different because in order to improve the physicommechanical properties of the material, the blank is heated by inserting layers of glass cloth with a carbon coating into it in the molding stage, after which electrical current is passed through these layers.

DISTRIBUTION LIST
DISTRIBUTION DIRECT TO RECIPIENT

<u>ORGANIZATION</u>	<u>MICROFILMS</u>
A203 DMAMTC	1
A210 DMAAC	1
B344 DIA/RTS-2C	9
C063 USAMIA	1
C500 TRADOC	1
C509 BALLISTIC RES LAB	1
C510 R&T LABS/AVRADCOM	1
C513 ARADCOM	1
C533 AVRADCOM/TSARCOM	1
C539 TRASAMA	1
C591 PSTC	4
C619 MIA REDSTONE	1
D008 WISC	1
E053 HQ USAF/INET	1
E404 AEDC/DOF	1
E408 AFVL	1
E410 AD/IND	1
E429 SD/IND	1
P005 DOE/ISA/DOI	1
P050 CIA/OCR/ADD/SD	2
AFIT/LDE	1
FTD	
CCN	1
NLA/PHS	1
LLNL/Code L-389	1
NSA/NST-44	1
NSA/TS13/TDL	2
ASD/FTD/10LA	1
FSL/NIX-3	1

END

DATE

FILMED

DTIC

4/88